



International Association of Fish and Wildlife Agencies

(Organized July 20, 1902)

Hall of the States

444 North Capitol St. NW, Suite 534, Washington, DC 20001

(202) 624-7890

P. Max Peterson, Executive Vice President

MEMORANDUM

TO: U.S. Governmental Members
FROM: *R. Max Peterson*
R. Max Peterson, Executive Vice President
DATE: June 9, 1989
SUBJECT: Guidelines for Fish and Wildlife Management in Wilderness Areas

FEB 25 1987

FISH WILDLIFE DIVISION
DIRECTOR'S OFFICE

Recently some questions have arisen as to the rules that apply to management of fish and wildlife in wilderness areas administered by the Bureau of Land Management or the Forest Service. In order to provide assistance and information to you, we are enclosing memorandum #86-665 dated August 25, 1986 from the Bureau of Land Management and interim directive #2 dated September 3, 1986 from the Forest Service handbook, both relating to guidelines for fish and wildlife management in wilderness areas.

These instructions were developed following several years of cooperative effort with the Association. The minutes of the International Association's Business Meeting in Providence of September 1986 contained the following:

"Mr. Dan Poole of the Wildlife Management Institute described the long cooperative efforts with the Association, the Bureau of Land Management and Forest Service to develop guidelines for wildlife management in wilderness areas. He explained that the guidelines had been completed; that identical guidelines had already been approved and released by the Forest Service and the Bureau of Land Management; and, he recommended that the Association endorse the guidelines as issued. Cronin moved, Morris seconded a motion to endorse the guidelines and commend the agencies and those involved in their preparation. The motion passed with applause."

It may be that some BLM, Forest Service or state people are not familiar with these cooperatively developed guidelines. Also, it is recognized that these guidelines cannot immediately solve all of the various question that may arise in the field. For that reason, the guidelines allow considerable flexibility for cooperative resolution of questions at local levels.

Enclosures (2)

cc: Mr. Richard E. Woodrow, USFS
Mr. J. David Almand, BLM
Mr. Bill Reffalt, The Wilderness Society



International Association of Fish and Wildlife Agencies

(Incorporated July 2, 1902)

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Jack H. Berryman, Executive Vice President

MEMORANDUM

TO: U.S. Governmental Members

FROM: Jack H. Berryman, Executive Vice President
Jack H. Berryman

DATE: September 5, 1986

SUBJECT: Guidelines for Fish and Wildlife Management
on Wilderness Areas

Attached is instruction memo #86-665 dated August 25, 1986 from the Bureau of Land Management and Interim Directive #2 dated September 3, 1986 from the Forest Service Handbook, both relating to guidelines for fish and wildlife management on wilderness areas. The content of these two documents was transmitted with my memorandum of August 15. So, the wording in the attachments from the Forest Service and BLM are the same as previously transmitted; and, while the format and style is somewhat different, there is identical and approved instruction from both agencies concerning wildlife management in wilderness.

This subject will be discussed during the Business meeting in Providence.

FOREST SERVICE HANDBOOK
Washington, D.C.

FSH 2309.19 - WILDERNESS MANAGEMENT HANDBOOK

INTERIM DIRECTIVE NO. 2

SEPT. 3, 1986

DURATION: One year from issuance date unless previously terminated or reissued.

CHAPTERS: Entire Handbook

POSTING NOTICE: Last ID was No. 1, which has expired.

This interim directive reissues I.D. No. 1, which established the Wilderness Management Handbook. It contains direction for managing congressionally designated wilderness areas. This handbook contains new Policies and Guidelines for Fish and Wildlife Management in Wilderness developed jointly by the International Association of Fish and Wildlife Agencies, the Forest Service, and the Bureau of Land Management in August 1986.


LARRY HENSON
Associate Deputy Chief

23 - WILDLIFE AND FISH

23.1 - Wildlife and Fish Management. The responsibilities of the Forest Service and other cooperating State and Federal agencies in the management of National Forest Wildlife and Fish are not altered by the Wilderness Act. Wildlife and Fish Management policy is found in FSM 2323.3. Management is also directed by the "Policies and Guidelines for Fish and Wildlife Management in National Forest and Bureau of Land Management Wilderness," developed jointly by the Forest Service, Bureau of Land Management, and the International Association of Fish and Wildlife Agencies (ex. 1).

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1

POLICIES AND GUIDELINES FOR FISH AND WILDLIFE MANAGEMENT
IN NATIONAL FOREST AND BUREAU OF LAND MANAGEMENT WILDERNESS
(FS BLM & IAFWA--August 1986)

PURPOSE

This statement of policy and the following guidelines are intended to provide guidance to State and Federal personnel for the management of fish and wildlife in wilderness in accordance with the Wilderness Act of 1964 (16 USC 1131-1136). Both State and Federal agencies are responsible for fostering mutual understanding and cooperation in the management of fish and wildlife in wilderness. These guidelines should serve as a framework for cooperation among the Forest Service, Bureau of Land Management, and the States in the coordination of fish and wildlife management and in the development of cooperative agreements or other management plans.

These policies and guidelines were developed within the overall context of the purpose and direction of the Wilderness Act, and they should be made available to all agencies responsible for management of the National Wilderness Preservation System, to appropriate State fish and wildlife agencies, and to other interested parties.

GENERAL POLICY

Fish and wildlife management activities in wilderness will be planned and carried out in conformance with the Wilderness Act's purpose of securing an "enduring resource of wilderness" for the American people. The wilderness resource is defined in section 2(c) of the Act as an area essentially "untrammeled by man," where natural ecological processes operate freely and the area is "affected primarily by the forces of nature." The National Wilderness Preservation System will be managed to ensure that ecological succession, including fire and infestation of insects, operate as freely as possible with only minimum influence by humans.

Fish and wildlife management activities will emphasize the protection of natural processes. Management activities will be guided by the principle of doing only the minimum necessary to manage the area as wilderness.

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

Section 4(d)(8) of the Wilderness Act stipulates that "Nothing in this Act shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the National Forests." Angling, hunting, and trapping are legitimate wilderness activities, subject to applicable State and Federal laws and regulations.

This nation is fortunate in having a National Wilderness Preservation System encompassing a wide range of ecosystems. Specific on-the-ground conditions will result in slightly different application of these guidelines in so vast a system. These different applications are spelled out in National Forest Plans or wilderness management plans. This is both appropriate and proper, if we are to allow nature to play the dominant role.

1. USE OF MOTORIZED EQUIPMENT

Section 4(c) of the Wilderness Act states:

Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for this administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

The emphasis is on the management of the area as wilderness as opposed to the management of a particular resource. This language is viewed as direction that all management activities within wilderness be done without motor vehicles, motorized equipment, or mechanical transport, unless truly necessary to administer the area or specifically permitted by other provisions in the Act. It means that any such use should be rare and temporary; that no roads can be built; and that wilderness managers must determine such use is the

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

minimum necessary to accomplish the task. Any use of motorized equipment or mechanical transport requires advance approval by the administering agency.

2. FISH AND WILDLIFE RESEARCH AND MANAGEMENT SURVEYS

Research on fish and wildlife, their habitats, and the recreational users of these resources is a legitimate activity in wilderness when conducted "in a manner compatible with the preservation of the wilderness environment" (Sec. 4(d)(1) of the Wilderness Act). Methods that temporarily infringe on the wilderness environment may be approved if alternative methods or other locations are not available. Research or management surveys must be approved in writing, on a case-by-case basis, by the administering agency.

Helicopters and fixed-wing aircraft overflights may be used to conduct approved fish and wildlife research activities. Aircraft must be used in a manner that minimizes disturbance of other users, including humans and wildlife.

All fish and wildlife studies within and over wilderness must be conducted so as to preserve the natural character of the wilderness. Aerial counts and observations of wildlife may be permissible for management of wilderness wildlife resources. Capturing and marking of animals, radio telemetry, and occasional temporary installations (such as shelters for cameras and scientific apparatus and enclosures and exclosures essential for wildlife research or management surveys) may be permitted, if they are essential to studies that cannot be accomplished elsewhere.

Guidelines

- a. Obtain specific written approval or permits from the administering agency before erecting any structure, enclosure, or exclosure.
- b. Locate and construct all structures so as to make them unobtrusive on the landscape.
- c. Construct structures of native materials or camouflage to make them blend with their natural surroundings.

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

- d. Plan aircraft flights over wilderness to minimize disturbance. Consider time of day, season of the year, route and altitude of flight, and location of landing areas on the perimeter of the wilderness.
- e. Research projects underway when a wilderness is designated may continue, but modify research methods to minimize disturbance of the wilderness environment.
- f. Installation of permanent base stations within wilderness is not permitted for monitoring of radio-instrumented animals.
- g. The administering agency should only approve capture methods that minimize the impact on the wilderness environment.

3. FACILITY DEVELOPMENT AND HABITAT ALTERATION

In rare instances, facility development and habitat alteration may be necessary to alleviate adverse impacts caused by human activities on fish and wildlife. For the benefit of wildlife that spend only part of the year in wilderness, give first priority to locating facilities or habitat alterations outside wilderness.

Flow-maintenance dams, water developments, water diversion devices, ditches and associated structures, and other fish and wildlife habitat developments necessary for fish and wildlife management (which were in existence before wilderness designation) may be permitted to remain in operation.

Clearing of debris that impedes the migratory movements of fish on primary spawning streams may be permitted, but only in a manner compatible with the wilderness resource.

Maintenance of existing water supplies and development of additional water supplies may be permitted, but only when essential to preserve the wilderness resource and to correct unnatural conditions resulting from human influence.

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--ContinuedGuidelines

- a. Submit proposals for new structures or habitat alterations to the administering agency for approval.
- b. Build or maintain new and existing structures permitted for wildlife management in a manner that minimizes the visual impacts on the landscape.
- c. Limit clearing of debris from spawning streams to those identified in the wilderness management plan as being critical to the propagation of fish.
- d. Use only nonmotorized equipment to clear debris. Use explosives only when the use of hand tools is not practical, and only outside of heavy visitor-use periods.
- e. The administering agency and the State agency will jointly make decisions to remove existing water-related improvements.
- f. If it is necessary to restore essential food plants after human disturbance, use only indigenous plant species.

4. THREATENED AND ENDANGERED SPECIES

Many wilderness areas provide important habitat for Federally listed threatened and endangered species of wildlife. Actions necessary to protect or recover threatened or endangered species, including habitat manipulation and special protection measures, may be implemented in wilderness. But such actions must be necessary for the perpetuation or recovery of the species and it must be demonstrated that the actions cannot be done more effectively outside wilderness. Use only the minimum actions necessary and the methods most appropriate in wilderness.

Guidelines

- a. Manage wilderness to protect known populations of Federally listed threatened or endangered species

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

where necessary for their perpetuation and to aid in their recovery in previously occupied habitat.

- b. When alternative areas outside of wilderness offer equal or better opportunities for habitat improvement or species protection, take actions to recover threatened or endangered species outside of wilderness first.
- c. Threatened and endangered species may be transplanted into previously occupied habitat within wilderness.
- d. All transplants or habitat improvement projects require approval by the administering agency.
- e. To prevent Federal listing, protect indigenous species that could become threatened or endangered or are listed as threatened or endangered by States.

5. ANGLING, HUNTING, AND TRAPPING

Angling, hunting, and trapping are legitimate wilderness activities subject to applicable State and Federal laws and regulations.

6. POPULATION SAMPLING

Scientific sampling of fish and wildlife populations is an essential procedure in the protection of natural populations in wilderness.

Guidelines

- a. Use only methods that are compatible with the wilderness environment.
- b. Gill netting, battery-operated electrofishing, and other standard techniques of population sampling may be used.
- c. Closely coordinate sampling activities with the administering agency and schedule them to avoid heavy public-use periods.

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued7. CHEMICAL TREATMENT

Chemical treatment may be necessary to prepare waters for the reestablishment of indigenous species, to protect or recover Federally listed threatened or endangered species, or to correct undesirable conditions resulting from the influence of man. Species of fish traditionally stocked before wilderness designation may be considered indigenous if the species is likely to survive. Undesirable conditions and affected species shall be identified in wilderness plans.

Guidelines

- a. Use only registered pesticides according to label directions.
- b. In selecting pesticides, give preference to those that will have the least impact on non-target species and on the wilderness environment.
- c. Schedule chemical treatments during periods of low human use, insofar as possible.
- d. Immediately dispose of fish removed in a manner agreed to by the administering agency and the State agency.

8. SPAWN TAKING

The collection of fish spawn shall be permitted from wilderness when alternative sources are unavailable or unreliable, or where spawn taking was an established practice before wilderness designation.

Guidelines

- a. Do not use motorized equipment to assist in collecting and removing spawn.
- b. Use of techniques and facilities necessary to take spawn, which were in existence before wilderness designation, may continue as provided for in the wilderness management plan.

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

- c. Facilities for spawn-taking stations approved after wilderness designation must be removed after the termination of each season's operation.
- d. Decisions to prohibit spawn taking, where it was an established practice before wilderness designation, will be made jointly by the administering agency and the State agency.

9. FISH STOCKING

Fish stocking may be conducted by the State agency in coordination with the administering agency, using means appropriate for wilderness, when either of the following criteria is met: (a) to reestablish or maintain an indigenous species adversely affected by human influence; or (b) to perpetuate or recover a threatened or endangered species.

Selection of species for stocking will be determined jointly by the administering agency and the State agency. Exotic species of fish shall not be stocked. The order of preference for stocking fish species is (a) Federally listed threatened or endangered indigenous species, (b) indigenous species. Species of fish traditionally stocked before wilderness designation may be considered indigenous if the species is likely to survive. Numbers and size of fish and time of stocking will be determined by the State agency.

Barren lakes and streams may be considered for stocking, if there is mutual agreement that no appreciable loss of scientific values or adverse effects on wilderness resources will occur.

Guidelines

- a. The State agency shall make fish stocking schedules available to the administering agency, indicating what species and numbers are planned for each water within a wilderness.
- b. Adjust stocking rates to minimize the likelihood of exceeding the carrying capacity of the water being stocked so as to reduce the chance of producing a

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

population imbalance and to minimize the likelihood of attracting overuse detrimental to the wilderness resource.

10. AERIAL FISH STOCKING

Aerial stocking of fish shall be permitted for those waters in wilderness where this was an established practice before wilderness designation or where other practical means are not available. Aerial stocking requires approval by the administering agency.

Guidelines

- a. As justification for aerial stocking, the State agency will supply the administering agency a list of those waters where stocking with aircraft was an established practice before wilderness designation, indicating the type of aircraft used (fixed-wing or helicopter). This justification will become a part of the wilderness management plan.
- b. To stock waters that had not been aeriially stocked before wilderness designation, the State agency will demonstrate to the administering agency the need for using aircraft.
- c. Plan aircraft flights over wilderness to minimize disturbance. Consider season of year, time of day, route and altitude of flight, and location of landing areas on the perimeter of the wilderness.

11. TRANSPLANTING WILDLIFE

Transplants (removal, reintroduction, or supplemental introduction) of terrestrial wildlife species in wilderness may be permitted if necessary: (a) to perpetuate or recover a threatened or endangered species; or (b) to restore the population of an indigenous species eliminated or reduced by human influence.

Transplants shall be made in a manner compatible with the wilderness character of the area. Transplant projects,

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

including follow-up monitoring, require advance written approval by the administering agency.

Guidelines

- a. Motorized methods and temporary holding and handling facilities may be permitted if they are the minimum necessary to accomplish an approved transplant.

12. WILDLIFE DAMAGE CONTROL

Wildlife damage control in wilderness may be necessary to protect Federally listed threatened or endangered species, to prevent transmission of diseases or parasites affecting other wildlife and humans, or to prevent serious losses of domestic livestock. Control of nonindigenous species also may be necessary to reduce conflicts with indigenous species, particularly if the latter species are threatened or endangered.

Guidelines

- a. Acceptable control measures include lethal and nonlethal methods, depending upon need, justification, location, conditions, efficiency and applicability of State and Federal laws.
- b. Control measures will be implemented by the Animal and Plant Health Inspection Service, the administering agency, the State fish and wildlife agency, or other approved State agency, pursuant to cooperative agreements or memoranda of understanding. Wildlife damage control must be approved by the administering agency on a case-by-case basis.
- c. Direct control at individual animals causing the problem.
- d. Use only the minimum amount of control necessary to solve the problem.

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

- e. Use pesticides only where other measures are impractical. Use only registered pesticides according to label directions and subject to the following restrictions:
 - 1) Pesticides may be applied only by certified pesticide applicators.
 - 2) The placement of pesticides shall be accurately indicated on the largest scale USGS map available.
 - 3) Place warning signs at the entrance to the area where pesticides are being used to warn the public of any dangers to themselves or their pets.
 - 4) In the selection of pesticides, give preference to those that will have the least impact on non-target species and on the wilderness environment.

13. VISITOR MANAGEMENT TO PROTECT WILDERNESS WILDLIFE RESOURCES

Many wildlife species are sensitive to human encroachments on their ranges. Grizzly bear, bighorn sheep, elk, mountain goat, birds of prey (such as peregrine falcon and bald eagle), other migratory and resident birds, and certain other wilderness wildlife species cannot tolerate excessive human disturbance, particularly during certain seasons of the year.

When necessary to reduce human disturbance to a wildlife species, the administering agency, in coordination with the State agency, may take direct or indirect management actions to control visitor use.

Guidelines

- a. Specify in the wilderness management plan the management actions necessary and the agency responsible to reduce conflicts with wildlife.
- b. If and when it becomes apparent that public use is significantly degrading the wilderness wildlife resources, limitations on visitor use may be imposed

WILDERNESS MANAGEMENT HANDBOOK

Exhibit 1--Continued

and enforced by the appropriate agency. Any limitations will be applied equitably to all wilderness visitors.

14. MANAGEMENT OF FIRE

The objectives of fire management in wilderness are to: (a) permit lightning-caused fires to play, as nearly as possible, their natural ecological role within wilderness and (b) reduce, to an acceptable level, the risks and consequences of wildlife within wilderness or escaping from wilderness. Fire ignited by lightning will be permitted to burn or will be suppressed as prescribed in an approved plan. Prescribed fires ignited by man may be permitted to reduce unnatural buildup of fuels only if necessary to meet objectives (a) and (b) above. Although additional benefits may result from man-ignited prescribed fire, vegetative manipulation will not be used to justify such fires.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

IN REPLY REFER TO

8560 (240)

RECEIVED SEP - 3 1986

SEP 3 1986

Mr. Jack Berryman
Executive Vice President
International Association of
Fish and Wildlife Agencies
1325 Massachusetts Avenue, NW.
Washington, D.C. 20005

Mr. Daniel Poole
President, Wildlife Management
Institute
1101 - 14th Street, NW.
Suite 725
Washington, D.C. 20005

Dear Jack and Dan:

Attached is a copy of the BLM Instruction Memorandum (86-665) signed August 25, 1986, concerning policies and guidelines for fish and wildlife management in wilderness areas.

If you have any questions prior to the International's meeting in Rhode Island on September 14-17, please let me know. Otherwise, I look forward to participating in planned discussions concerning the guidelines during the Rhode Island meeting.

Sincerely,

J. David Almand
Chief, Division of Wildlife

Attachment



IN REPLY REFER TO:
8560.12B(342)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

August 25, 1986

Instruction Memorandum No. 86-665
Expires 9/30/87

To: All State Directors, Except Eastern States

From: Director

Subject: Policies and Guidelines for Fish and Wildlife Management
in Wilderness Areas

Attached is a new version of the 1976 guidelines for managing fish and wildlife in wilderness areas. As with the earlier version, the new guidelines were developed with the cooperation of the Wildlife Management Institute, officials of the International Association of Fish and Wildlife Agencies (IAFWA), the U.S. Forest Service (FS), and the Bureau of Land Management (BLM). Also as with the 1976 version, the policies and guidelines will be adopted by the IAFWA at its meeting in mid-September 1986.

These guidelines expand upon the fish and wildlife policy guidance found in the BLM wilderness and wildlife manuals. They should assist not only in helping with day-to-day management of fish and wildlife in wilderness areas, but also in the coordination and development of management plans and cooperative agreements. Further, they will provide consistent guidance from BLM to its respective Field Offices as well as to State fish and wildlife agencies.

Implementation of the guidelines assumes that all requirements of the BLM planning system, including public participation, have been met. Each wilderness area requires the completion of a Wilderness Management Plan which includes a public comment period. Wilderness Management Plans will address all provisions of the attached fish and wildlife guidelines, including consultation with affected landowners and other interests.

The policies and guidelines contained in the attachment should be implemented immediately upon approval by the IAFWA. The BLM State Offices will be notified when this action occurs. Once the guidelines are officially adopted, States should plan on incorporating the guidelines as an amendment to the

Memorandum of Understanding with respective State wildlife agencies. These guidelines will be included verbatim in a new wilderness management handbook soon to be developed as an addition to the existing 8560 Manual - Management of Designated Wilderness. The FS will also be amending their 2300 series Manual and including the guidelines verbatim in its Wilderness Management Handbook.



James M. Parker
Acting Director

1 Attachment

- 1 - Policies and Guidelines for Fish and Wildlife Management in National Forest and BLM Wilderness (9 pp)

POLICIES AND GUIDELINES FOR FISH AND WILDLIFE MANAGEMENT
IN NATIONAL FOREST AND BUREAU OF LAND MANAGEMENT WILDERNESS

Purpose

This statement of policy and the following guidelines are intended to provide guidance to State and Federal personnel for the management of fish and wildlife in wilderness in accordance with the Wilderness Act of 1964 (16 USC 1131-1136). Both State and Federal agencies are responsible for fostering mutual understanding and cooperation in the management of fish and wildlife in wilderness. These guidelines should serve as a framework for cooperation among the Forest Service, Bureau of Land Management, and the States in the coordination of fish and wildlife management and in the development of cooperative agreements or other management plans.

These policies and guidelines were developed within the overall context of the purpose and direction of the Wilderness Act, and they should be made available to all agencies responsible for management of the National Wilderness Preservation System, to appropriate State fish and wildlife agencies, and to other interested parties.

General Policy

Fish and wildlife management activities in wilderness will be planned and carried out in conformance with the Wilderness Act's purpose of securing an "enduring resource of wilderness" for the American people. The wilderness resource is defined in section 2(c) of the Act, as an area essentially "untrammelled by man", where natural ecological processes operate freely and the area is "affected primarily by the forces of nature." The National Wilderness Preservation System will be managed to ensure that ecological succession, including fire and infestation of insects, operate as freely as possible with only minimum influence by humans.

Fish and wildlife management activities will emphasize the protection of natural processes. Management activities will be guided by the principle of doing only the minimum necessary to manage the area as wilderness.

Section 4(d)(~~8~~) of the Wilderness Act stipulates that "Nothing in this Act shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the national forests." Angling, hunting, and trapping are legitimate wilderness activities, subject to applicable State and Federal laws and regulations.

This nation is fortunate in having a National Wilderness Preservation System encompassing a wide range of ecosystems. Specific on-the-ground conditions will result in slightly different application of these guidelines in so vast a system. These different applications are spelled out in National Forest Plans or wilderness management plans. This is both appropriate and proper, if we are to allow nature to play the dominant role.

- b. Control measures will be implemented by the Animal and Plant Health Inspection Service, the administering agency, the State fish and wildlife agency, or other approved State agency, pursuant to cooperative agreements or memoranda of understanding. Wildlife damage control must be approved by the administering agency on a case-by-case basis.
- c. Direct control at individual animals causing the problem.
- d. Use only the minimum amount of control necessary to solve the problem.
- e. Use pesticides only where other measures are impractical. Use only registered pesticides according to label directions and subject to the following restrictions:
 - 1) Pesticides may be applied only by certified pesticide applicators.
 - 2) The placement of pesticides shall be accurately indicated on the largest scale USGS map available.
 - 3) Place warning signs at the entrance to the area where pesticides are being used to warn the public of any dangers to themselves or their pets.
 - 4) In the selection of pesticides, give preference to those that will have the least impact on non-target species and on the wilderness environment.

13. Visitor Management to Protect Wilderness Wildlife Resources.

Many wildlife species are sensitive to human encroachments on their ranges. Grizzly bear, bighorn sheep, elk, mountain goat, birds of prey (such as peregrine falcon and bald eagle), other migratory and resident birds, and certain other wilderness wildlife species cannot tolerate excessive human disturbance, particularly during certain seasons of the year.

When necessary to reduce human disturbance to a wildlife species, the administering agency, in coordination with the State agency, may take direct or indirect management actions to control visitor use.

Guidelines

- a. Specify in the wilderness management plan the management actions necessary and the agency responsible to reduce conflicts with wildlife.
- b. If and when it becomes apparent that public use is significantly degrading the wilderness wildlife resources, limitations on visitor use may be imposed and enforced by the appropriate agency. Any limitations will be applied equitably to all wilderness visitors.

14. Management of Fire

The objectives of fire management in wilderness are to: (a) permit lightning-caused fires to play, as nearly as possible, their natural ecological role within wilderness and (b) reduce, to an acceptable level, the risks and consequences of wildfire within wilderness or escaping from wilderness. Fire ignited by lightning will be permitted to burn or will be suppressed as prescribed in an approved plan. Prescribed fires ignited by man may be permitted to reduce unnatural buildup of fuels only if necessary to meet objectives (a) and (b) above. Although additional benefits may result from man-ignited prescribed fire, vegetative manipulation will not be used to justify such fires.

Guidelines

- a. Do not use motorized equipment to assist in collecting and removing spawn.
- b. Use of techniques and facilities necessary to take spawn, which were in existence before wilderness designation, may continue as provided for in the wilderness management plan.
- c. Facilities for spawn-taking stations approved after wilderness designation must be removed after the termination of each season's operation.
- d. Decisions to prohibit spawn taking, where it was an established practice before wilderness designation, will be made jointly by the administering agency and the State agency.

9. Fish Stocking

Fish stocking may be conducted by the State agency in coordination with the administering agency, using means appropriate for wilderness, when either of the following criteria is met: (a) to reestablish or maintain an indigenous species adversely affected by human influence; or (b) to perpetuate or recover a threatened or endangered species.

Selection of species for stocking will be determined jointly by the administering agency and the State agency. Exotic species of fish shall not be stocked. The order of preference for stocking fish species is (a) Federally listed threatened or endangered indigenous species, (b) indigenous species. Species of fish traditionally stocked before wilderness designation may be considered indigenous if the species is likely to survive. Numbers and size of fish and time of stocking will be determined by the State agency.

Barren lakes and streams may be considered for stocking, if there is mutual agreement that no appreciable loss of scientific values or adverse effects on wilderness resources will occur.

Guidelines

- a. The State agency shall make fish stocking schedules available to the administering agency, indicating what species and numbers are planned for each water within a wilderness.
- b. Adjust stocking rates to minimize the likelihood of exceeding the carrying capacity of the water being stocked so as to reduce the chance of producing a population imbalance and to minimize the likelihood of attracting overuse detrimental to the wilderness resource.

10. Aerial Fish Stocking

Aerial stocking of fish shall be permitted for those waters in wilderness where this was an established practice before wilderness designation or where other practical means are not available. Aerial stocking requires approval by the administering agency.

Guidelines

- a. As justification for aerial stocking, the State agency will supply the administering agency a list of those waters where stocking with aircraft was an established practice before wilderness designation, indicating the type of aircraft used (fixed-wing or helicopter). This justification will become a part of the wilderness management plan.
- b. To stock waters that had not been aerielly stocked before wilderness designation, the State agency will demonstrate to the administering agency the need for using aircraft.
- c. Plan aircraft flights over wilderness to minimize disturbance. Consider season of year, time of day, route and altitude of flight, and location of landing areas on the perimeter of the wilderness.

11. Transplanting Wildlife

Transplants (removal, reintroduction, or supplemental introduction) of terrestrial wildlife species in wilderness may be permitted if necessary: (a) to perpetuate or recover a threatened or endangered species; or (b) to restore the population of an indigenous species eliminated or reduced by human influence.

Transplants shall be made in a manner compatible with the wilderness character of the area. Transplant projects, including follow-up monitoring, require advance written approval by the administering agency.

Guidelines

- a. Motorized methods and temporary holding and handling facilities may be permitted if they are the minimum necessary to accomplish an approved transplant.

12. Wildlife Damage Control

Wildlife damage control in wilderness may be necessary to protect Federally listed threatened or endangered species, to prevent transmission of diseases or parasites affecting other wildlife and humans, or to prevent serious losses of domestic livestock. Control of nonindigenous species also may be necessary to reduce conflicts with indigenous species, particularly if the latter species are threatened or endangered.

Guidelines

- a. Acceptable control measures include lethal and nonlethal methods, depending upon need, justification, location, conditions, efficiency and applicability of State and Federal laws.

- b. Build or maintain new and existing structures permitted for wildlife management in a manner that minimizes the visual impacts on the landscape.
- c. Limit clearing of debris from spawning streams to those identified in the wilderness management plan as being critical to the propagation of fish.
- d. Use only nonmotorized equipment to clear debris. Use explosives only when the use of hand tools is not practical, and only outside of heavy visitor-use periods.
- e. The administering agency and the State agency will jointly make decisions to remove existing water related improvements.
- f. If it is necessary to restore essential food plants after human disturbance, use only indigenous plant species.

4. Threatened and Endangered Species

Many wilderness areas provide important habitat for Federally listed threatened and endangered species of wildlife. Actions necessary to protect or recover threatened or endangered species, including habitat manipulation and special protection measures, may be implemented in wilderness. But such actions must be necessary for the perpetuation or recovery of the species and it must be demonstrated that the actions cannot be done more effectively outside wilderness. Use only the minimum actions necessary and the methods most appropriate in wilderness.

Guidelines

- a. Manage wilderness to protect known populations of Federally listed threatened or endangered species where necessary for their perpetuation and to aid in their recovery in previously occupied habitat.
- b. When alternative areas outside of wilderness offer equal or better opportunities for habitat improvement or species protection, take actions to recover threatened or endangered species outside of wilderness first.
- c. Threatened and endangered species may be transplanted into previously occupied habitat within wilderness.
- d. All transplants or habitat improvement projects require approval by the administering agency.
- e. To prevent Federal listing, protect indigenous species that could become threatened or endangered or are listed as threatened or endangered by States.

5. Angling, Hunting and Trapping

Angling, hunting and trapping are legitimate wilderness activities subject to applicable State and Federal laws and regulations.

6. Population Sampling

Scientific sampling of fish and wildlife populations is an essential procedure in the protection of natural populations in wilderness.

Guidelines

- a. Use only methods that are compatible with the wilderness environment.
- b. Gill netting, battery-operated electrofishing, and other standard techniques of population sampling may be used.
- c. Closely coordinate sampling activities with the administering agency and schedule them to avoid heavy public-use periods.

7. Chemical Treatment

Chemical treatment may be necessary to prepare waters for the reestablishment of indigenous species, to protect or recover Federally listed threatened or endangered species, or to correct undesirable conditions resulting from the influence of man. Species of fish traditionally stocked before wilderness designation may be considered indigenous if the species is likely to survive. Undesirable conditions and affected species shall be identified in wilderness plans.

Guidelines

- a. Use only registered pesticides according to label directions.
- b. In selecting pesticides, give preference to those that will have the least impact on non-target species and on the wilderness environment.
- c. Schedule chemical treatments during periods of low human use, insofar as possible.
- d. Immediately dispose of fish removed in a manner agreed to by the administering agency and the State agency.

8. Spawn Taking

The collection of fish spawn shall be permitted from wilderness when alternative sources are unavailable or unreliable, or where spawn taking was an established practice before wilderness designation.

1. Use of Motorized Equipment

Section 4(c) of the Wilderness Act states:

Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

The emphasis is on the management of the area as wilderness as opposed to the management of a particular resource. This language is viewed as direction that all management activities within wilderness be done without motor vehicles, motorized equipment, or mechanical transport, unless truly necessary to administer the area or are specifically permitted by other provisions in the Act. It means that any such use should be rare and temporary; that no roads can be built; and that wilderness managers must determine such use is the minimum necessary to accomplish the task. Any use of motorized equipment or mechanical transport requires advance approval by the administering agency.

2. Fish and Wildlife Research and Management Surveys

Research on fish and wildlife, their habitats and the recreational users of these resources is a legitimate activity in wilderness when conducted "in a manner compatible with the preservation of the wilderness environment" (Sec. 4(d)(1) of the Wilderness Act). Methods that temporarily infringe on the wilderness environment may be approved if alternative methods or other locations are not available. Research or management surveys must be approved in writing, on a case-by-case basis, by the administering agency.

Helicopters and fixed-wing aircraft overflights may be used to conduct approved fish and wildlife research activities. Aircraft must be used in a manner that minimizes disturbance of other users, including humans and wildlife.

All fish and Wildlife studies within and over wilderness must be conducted so as to preserve the natural character of the wilderness. Aerial counts and observations of wildlife may be permissible for management of wilderness wildlife resources. Capturing and marking of animals, radio telemetry, and occasional temporary installations (such as shelters for cameras and scientific apparatus and enclosures and exclosures essential for wildlife research or management surveys) may be permitted, if they are essential to studies that cannot be accomplished elsewhere.

Guidelines

- a. Obtain specific written approval or permits from the administering agency before erecting any structure, enclosure, or exclosure.
- b. Locate and construct all structures so as to make them unobtrusive on the landscape.
- c. Construct structures of native materials or camouflage to make them blend with their natural surroundings.
- d. Plan aircraft flights over wilderness to minimize disturbance. Consider time of day, season of the year, route and altitude of flight, and location of landing areas on the perimeter of the wilderness.
- e. Research projects underway when a wilderness is designated may continue, but modify research methods to minimize disturbance of the wilderness environment.
- f. Installation of permanent base stations within wilderness is not permitted for monitoring of radio-instrumented animals.
- g. The administering agency should only approve capture methods that minimize the impact on the wilderness environment.

3. Facility Development and Habitat Alteration

In rare instances, facility development and habitat alteration may be necessary to alleviate adverse impacts caused by human activities on fish and wildlife. For the benefit of wildlife that spend only part of the year in wilderness, give first priority to locating facilities or habitat alterations outside wilderness.

Flow-maintenance dams, water developments, water diversion devices, ditches and associated structures, and other fish and wildlife habitat developments necessary for fish and wildlife management (which were in existence before wilderness designation) may be permitted to remain in operation.

Clearing of debris that impedes the migratory movements of fish on primary spawning streams may be permitted, but only in a manner compatible with the wilderness resource.

Maintenance of existing water supplies and development of additional water supplies may be permitted, but only when essential to preserve the wilderness resource and to correct unnatural conditions resulting from human influence.

Guidelines

- a. Submit proposals for new structures or habitat alterations to the administering agency for approval.